

DOCUMENT RESUME

ED 085 565

CE 000 750

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TITLE Cooperative Vocational Education Programs: Staff Development. Information Series Number 70.  
INSTITUTION Ohio State Univ., Columbus. Center for Vocational and Technical Education.  
SPONS AGENCY National Inst. of Education (DHEW), Washington, D.C.  
REPORT NO IS-70  
PUB DATE 73  
NOTE 42p.  
AVAILABLE FROM Product Utilization Section, The Center for Vocational and Technical Education, 1960 Kenny Road, Columbus, Ohio 43210

EDRS PRICE MF-\$0.65 HC-\$3.29  
DESCRIPTORS \*Cooperative Education; Cooperative Programs; \*Instructor Coordinators; Personnel Evaluation; \*Personnel Needs; Personnel Policy; \*Personnel Selection; Professional Personnel; Recruitment; School Industry Relationship; School Personnel; \*Vocational Education

ABSTRACT

Staffing for cooperative vocational education constitutes one of the most critical variables in planning and operating a successful program. Among the factors which must be considered are: the students, occupations taught, cooperating employers, the school district, supporting staff, scheduling, coordinator availability, student supervision, record keeping, and related youth group activities. The teacher-coordinator must have the time and assistance necessary to properly perform essential coordination activities. A class of fifteen to twenty students, prepared training sponsors, and staff of paraprofessionals and clerical workers approach these criteria. Certain competencies must be possessed by staff members, and though there may be some variation among position specifications, some general categories of competency are: performance, enthusiasm, ability to relate to students, flexibility, creativity, and proper projected attitude. Compensation and evaluation efforts must be examined, and inservice education opportunities should be available. Combining these elements with tested sources for personnel recruitment will contribute to a successful cooperative vocational education program. (AG)

ED 085565

Information

Series No. 70

VT 021 571

# COOPERATIVE VOCATIONAL EDUCATION PROGRAMS: STAFF DEVELOPMENT

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**COOPERATIVE VOCATIONAL EDUCATION PROGRAMS:  
STAFF DEVELOPMENT**

Roy L. Butler

ERIC Clearinghouse on Vocational and Technical Education  
The Center for Vocational and Technical Education  
The Ohio State University  
1960 Kenny Road Columbus, Ohio 43210

1973

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## FOREWORD

Increasing emphasis on utilizing community resources to acquaint students with employment opportunities has stimulated a demand for more cooperative education programs. Educators responsible for development of these programs have found that the most serious inhibiting factor is the shortage of qualified personnel.

This publication examines factors relating to recruitment, development, and motivation of competent staff and offers suggestions concerning staff development to school administrators and vocational education directors involved in planning and operating cooperative vocational education programs.

The profession is indebted to Roy L. Butler for his scholarship in the preparation of this report. Recognition is also due Kenneth D. Thompson, Arizona Department of Education, for his critical review of the manuscript prior to final revision and publication. Paul E. Schroeder coordinated the publication's development, and Paula Kurth provided the technical editing.

Robert E. Taylor  
Director  
ERIC Clearinghouse on Vocational  
and Technical Education

## **INTRODUCTION**

Cooperative vocational education, an educational alternative offered through public schools, has been a legitimate option for a limited number of students during the past three-quarters of a century. More recently, an increasing number of school administrators, boards of education, and advisory committees have been looking favorably toward utilizing more community resources to extend the range of educational opportunities for a larger number of students through the cooperative vocational education method of instruction.

School administrators who are contemplating the establishment of such programs, as well as those who currently have an operational cooperative vocational education program, are charged with the responsibility of acquiring, maintaining, and motivating appropriate staff. A notable problem concerning the establishment and operation of cooperative vocational education programs has been a shortage of qualified personnel.

The purpose of this paper is to amplify some considerations relevant to the recruitment, development, and maintenance of cooperative vocational education staff. Many of the considerations could apply to staffing all forms of work-education programs, to include work experience, work exposure, and internships.

## **ITEMS RELATING TO STAFF ARRANGEMENTS**

Staffing for cooperative vocational education constitutes one of the most critical variables in planning and operating a successful program. The diversified, time consuming, and complex nature of cooperative vocational education program supervision underscores the need to consider many items relating to staffing arrangements. Owing to the nature of the programs, the usual patterns and formulas for determining staff arrangements should not be utilized.

### Program Variables

The needed staffing arrangement will greatly depend on the forms and types of cooperative vocational education programs offered through the school system (Butler and York, 1971). More specifically, staffing arrangements are dependent upon the following factors: (1) number and characteristics of students to be served; (2) number and diversity of occupations to be taught; (3) number and characteristics of cooperating employers; (4) size and location of the school district and employment community; (5) number of supporting staff (e.g., guidance personnel, related vocational subjects teachers and special education staff) within or accessible to the school (Guide for Cooperative..., 1969); (6) scheduling problems associated with coordinator-conducted related classes; (7) amount of time the coordinator is required to spend outside of school hours and on weekends; (8) the amount and quality of student supervision available from cooperating employers; (9) records required and secretarial assistance provided (Cooperative Occupational Education, 1972); and (10) related youth group activities.

Whatever the situation, the teacher-coordinator is considered the key staff figure since he or she is normally assigned responsibility for operating the program and solving problems relating to it. The multiplicity of potential program variables makes it clear that a great amount of support and expertise are needed to coordinate a successful program.

### Coordination

An important aspect relating to staffing arrangements deals with clarification of the term "coordination." A recent and specific definition of "coordination" as it relates to cooperative vocational education, has been provided by the U.S. Office of Education (1970:20):

Coordination involves a range of activities. In addition to the prime activity of coordinating instruction in the school and on the job, coordination may also include, but is not limited to, student recruitment and orientation, survey of employers, organization and work with advisory committees, parent consultation, evaluation (follow-up), report writing, sponsorship of youth organization activities.

A poorly coordinated cooperative vocational education program, because of its visible nature, stands the chance of "dis-harmonizing" school and community relations much faster than other methods of instruction which are contained within school walls. Conversely, an effectively coordinated program can harmonize school and community relations.

If the program is to succeed in serving the career needs of students and be a harmonizing influence, it is imperative for the teacher-coordinator to have the necessary time and assistance to properly perform essential coordination activities.

#### Work Load

Cumulative experience of experts at a national conference yielded the following suggestion regarding staffing arrangements for cooperative vocational education programs:

(1) The optimal number of students that one teacher-coordinator could serve with two hours of class and adequate time for follow-up activities is 15-20 students. In programs where the coordinator does not teach the related instruction in class groups, but works with students on a one-to-one basis, it may be possible to serve more students. Generally, a half hour per student per week is needed for coordination time, but coordinators who work with disadvantaged students should be given smaller groups or fewer individuals to counsel and supervise. The maximum number of students assigned to any one coordinator should be thirty-five...(2) It is generally agreed that coordination calls on each student [at his or her employment station] should be made at least once every two weeks...(3) It is generally agreed that coordinators should be employed on a 12-month contract and that cooperative vocational education should be available to students during the summer months (Notes and Working...1969:82-84).

Tapp (1969) has called attention to the value of operating a program during the summer months to prepare potential cooperative vocational education students for placement in training stations. The approach assures that students will

be placed in a training station at the beginning of the school year.

#### Training Sponsor Development

The responsible school officials will also need to determine how much time and energy will be devoted to developing training station sponsors into useful partners. Wallace claims that few training stations are perfect in the beginning. Wallace goes on to say:

School administrators are quick to recognize the high cost of providing a substantial amount of released time for the coordinator to work on training sponsor development. On the other hand, the coordinator often shies away from the challenge of working to develop training sponsors. Most difficult and challenging of all is extracting a genuine commitment to the educational enterprise but once that commitment has been made, when the training sponsor views himself as part of the "downtown faculty," the real payoff in educational significance and meaningful learning becomes available. Enlightened administrators and coordinators with a vision of the role that they should play are eager to accept the challenge of training-sponsor development and are eager to pay the cost because potential benefits are great enough that the energy and money are recognized as being well invested (1971:8).

As a result of his study, Wilson (1970) highly recommended that teacher-coordinators should take advantage of their position to select and prepare training station sponsors. The decision made on school personnel involvement, as it relates to training station sponsor development, is an important staffing arrangement consideration.

#### Differentiated Staffing

Willet (1969) and Lesh (1966) emphasize that paraprofessional personnel can add an important and significant staffing dimension to cooperative vocational education programs. Experience has shown that paraprofessionals offer a great resource

not only for the assistance they provide professionals, but also for their ability to establish rapport and communication, particularly with disadvantaged youth.

If individualizing instruction and consideration of meeting the needs of individual differences in students is to be an important part of the cooperative vocational education program offering, then it is important to recognize individual differences in the staffing arrangement.

In discussing the need for differentiated staffing, Nikolai claims that those in positions of authority have not given adequate attention to it and further:

Until responsible educators begin to recognize individual differences in utilizing staff and differentiating their roles, an individualized [sic] instructional program will remain a pious hope (1970:25).

Research studies relating specifically to differentiated staffing arrangements in cooperative vocational education programs are not identifiable in current and past literature. However, differentiated staffing in other school settings is receiving much attention as evidenced by an abstract series published cooperatively by the ERIC Clearinghouse on Educational Management, and The National Academy of School Executives (NASE) of the American Association of School Administrators (1971). This particular document cites 46 reports that deal with the various aspects of differentiated staffing. Increasing research evidence suggests that differentiated staffing is desirable. Budgetary constraints now appear to be the prime item limiting the expansion of such staffing arrangements.

However, larger enrollments and more effective supervision of cooperative vocational education programs could potentially be provided by employing clerical persons and teacher-aides to attend to routine duties and assist with other assigned tasks. To the extent possible, it appears that differentiated staffing arrangements should be utilized to provide a balanced and effective cooperative vocational education program effort in the community.

## COMPETENCIES NEEDED BY STAFF

The specific and general competencies needed by the cooperative vocational education staff members have been receiving an increasing amount of attention. Many competencies, which were presumed to be essential, have been scrutinized through research. Experience and research have provided findings relevant to developing position specifications. In addition, the context within which the program operates will suggest needed staff competencies to include position specifications.

### Position Specifications

Position specifications should be developed for each staff member in accordance with performance expectations or tasks. A recent study, sponsored by The Center for Vocational and Technical Education at The Ohio State University and conducted by Cotrell and his associates (1972) determined the pedagogical performance requirements of teacher-coordinators of cooperative vocational education programs in off-farm agricultural, distributive, wage earning home economics, office occupations, special needs, and trade and industrial education. Specifically, the study identified the performance elements required for teacher-coordinators of the six types of cooperative vocational educational programs and determined which were common and which were unique to the six programs. The study team, through occupational analysis, identified 385 performance elements as potentially common requirements of the six types of cooperative vocational education programs. A 300 member national task force, composed of outstanding teacher-coordinators, rated the performance elements; 91.8 percent were considered by this group as common requirements for the six programs.

As a result of the study, the researchers recommended that core offerings should be considered in developing model curricula for prospective teacher-coordinators (see Appendix A for a summary of the ratings). The findings of this study could be used to develop an appropriate position specification for the teacher-coordinator of a local cooperative vocational education program. If the staffing arrangement included

differentiated staff, the study findings could be utilized to provide a guide for development of appropriate position guides for the staff. That is, some of the items normally performed by the teacher-coordinator could be shifted to other staff members. A review of the 385 performance tasks suggests that a differentiated staffing arrangement would likely be necessary in order to give adequate attention to all performance elements.

Crawford (1967) conducted a study that has relevance to developing position specifications for teacher-coordinators and aides. The study was conducted to determine the job performance requirements and activities of distributive education teacher-coordinators. Based on the critical tasks required of students who would ultimately be employed in distributive education occupations, a specific list of competencies which should be possessed by prospective teacher-coordinators was developed. Many of the competencies determined and considered important in the studies conducted by Cotrell (1972) and Crawford (1967) were quite similar.

#### Personal Qualities

Other competencies and abilities of a personal nature are considered important by Kaufman, et al. (1967), Huffman (1967), and Wallace (1970). In general, they conclude that the teacher-coordinator and other cooperative vocational education staff members should: (1) be enthusiastic about cooperative vocational education programs; (2) have the ability to personally relate to students; (3) be flexible and creative; and (4) project a positive, caring, and accepting attitude.

#### Certification

As noted earlier, the competencies needed by staff members will depend on the context within which programs operate. York and Butler (1971:6) point out:

...there appears to be little doubt that the personal qualities, subject matter knowledge, and teaching skills of the teacher-coordinator are important to performance. The basic problem seems to be a matter of identifying and determining the kinds and amount of competencies needed to perform in an effective manner.

Often those identified have little relationship to certification. Studies on certification are not plentiful in the literature. Common threads of the basic requirements for teacher-coordinator certification were identified by Cotrell (1970). He reported that certification requirements tended to vary from state to state, but a general synthesis suggests that a teacher-coordinator certificate is granted to individuals who have: (1) a bachelor's degree, (2) a minimum of two years of occupational experience, (3) one or two courses in cooperative education in addition to professional courses required of other teachers, and (4) technical courses which meet the requirement of the individual's major in the baccalaureate. Consideration should be given to changing certification requirements as performance tasks are further identified and refined.

## EVALUATION AND COMPENSATION

Castetter (1971) points out that the relationship between job specifications and man specifications can be used to develop a position guide. He goes on to state:

Although the position guide is useful in describing the nature of the position, as well as its key tasks and relationships, the development of performance standards is a further step toward clarifying for the position holder how well he is expected to perform and what he is expected to accomplish in a given period of time...superiors, subordinates, and supervisory personnel participate in setting performance standards. Statements of standards, when appended to the position guide, extend the position description by indicating what the organizational expectations are and what results should be anticipated when the work is well done (1971:242-243).

Among other things, matching job requirements and personal (or man) specifications enables the administrator to determine a suitable compensation offering. The University of Minnesota *Guide* suggests:

In order to attract occupationally competent personnel [for cooperative vocational education programs] from business and industry it is often necessary to allow salary schedule credit for occupational experience, just as experienced teachers are compensated in accordance with their years of teaching experience. The competence of the coordinator in the occupational field for which training is given should be recognized as essential to providing a quality educational program (1969:91).

#### Evaluation for Merit Pay

Evans (1970) suggests that the pay for vocational teachers should be based on merit and on supply and demand, rather than hours of education and seniority. Along this same line of reasoning, Ribbens (1972) reported on an incentive awards pay plan for vocational teachers in the Kent Intermediate School District at Grand Rapids, Michigan. Based on the premise that potential skill center instructors, with their years of on-the-job experience in business and industry, demanded something extra to leave their jobs and enter the classroom, the local school board developed a plan for determining salary increments based on student performance. Key features of the plan include: (1) base salary determined by calculating 75 percent of the salary distribution of persons employed in the particular occupations or skill area; (2) maximum salary not to be more than twice the base; (3) skills course outlines which include minimum achievement objectives, developed for students cooperatively with business and industrial representatives; and (4) each student's achievement evaluated at midyear and at the end of the school year by a committee of not less than five members from industry plus representatives from the school administration.

The average achievement of all students taught by the instructor is utilized to serve as the basis for computing and establishing a bi-yearly lump sum incentive payment over the base salary. The base salary was devised by determining the length of the school year in days. Then based on an hourly wage for each skill to be taught (ranging from \$4.00 per hour for child care to \$7.00 per hour for air condition specialists), an eight hour day wage was determined and multiplied by the number of school days, excluding vacation and

holidays. This yielded the yearly base salary scale for each instructor. The maximum yearly lump sum incentive is computed at 80 percent of the instructor's base salary.

Other performance criterion used to determine yearly salaries in the Michigan plan include a professional conduct factor which is rated by administrators. Items considered in the professional conduct category include willingness to assume responsibility, leadership initiative, cooperativeness, adherence to policy, and attendance.

Although this approach to compensation and evaluation has been operational only since February 1970, the teachers and administrators feel it is successful. Anticipated and actual problems have tended to vanish as the incentive award system has gained maturity. Experience has revealed that the advantages outweigh the disadvantages. Ribbens (1972) sums it up this way:

The advantages of the incentive pay plan go beyond attracting and keeping good teachers. The plan provides for continual reassessment, not only of the students' and instructors' performance, but also of the curriculum itself...

Potentially good teachers from industry become better teachers under this philosophy... While their students are rewarded with the prospect of fine training and, eventually, well-paying jobs, the instructor receives his reward at the end of each semester. Instructors unable to adjust to the classroom soon find out if they don't measure up on the incentive award scale, and are finally eliminated from the system under the constant evaluation. Thus the teacher is accountable to the school system and to the community at all times (1972:73).

Since business and industrial personnel cooperation is needed to provide superb cooperative vocational education programs, the Kent Intermediate School District compensation plan (or a derivation of it) may be appropriate for evaluating and compensating teacher-coordinators and other staff giving leadership to such programs. It should be noted at this point that being accepted as one of the school faculty is often a major problem for the teacher-coordinator. Lack of understanding by other faculty members concerning the teacher-coordinator's work schedule and performance requirements

1

tend to contribute to the acceptance problem. The above plan, if applied only to cooperative vocational education staff members, could decrease the cohesiveness of the total school faculty. If cohesiveness of staff is a problem, a more common plan would likely be advisable. The most common pay plan for teacher-coordinators is based on the regular teacher salary scale, plus an allowance for occupational experience.

### The Redfern Approach

Another systematic and useful staff appraisal technique has been presented by Redfern (1963). He maintains that improvement in teacher performance is not accidental, but results when a deliberate effort is made to bring it about. Amplifying this notion, he says:

It is sometimes said that people do not what is expected of them but rather what is inspected. This has its parallel in teaching. Performance that is carefully and consistently appraised is likely to be more effective than that left to its own devices (1963:6).

In another publication, Redfern (n.d.) has outlined a cooperative process of staff evaluation to accomplish the following objectives:

- 1) Clarify the performance expectations of the individual, i.e., make duties and responsibilities clearer.
- 2) Establish both short and long term work goals.
- 3) Bring about a closer working relationship between the appraisee and evaluator.
- 4) Make evaluation relevant to on-going job performance.
- 5) Establish "ground rules" or plans for both the appraisee and evaluator to follow-up on "target" achievement.
- 6) Keep good records of class visitations, follow-up conferences and other appraisee-evaluator contacts.

- 7) Assess results of job performance both by means of self-appraisal and evaluation by the evaluator, i.e., make it a cooperative process.
- 8) Conduct a good evaluation conference.
- 9) Establish appropriate ways for follow-up of actions needed for further improvement.
- 10) Keep evaluation a dynamic process; assess its effectiveness periodically; revise it as necessary.

When the performance areas and expectations for each have been delineated, it is necessary to decide how frequently staff members should be evaluated. Redfern (n.d.:5) has graphically portrayed an evaluation scheme that structures the evaluation process (see Figure 1).

Regardless of the staff evaluation plan selected, those to be evaluated need a clear understanding of its purposes. Redfern (1963:23) states:

The purpose of appraisal needs careful explanation regardless of whether it is a new idea or a revision of an existing plan. Is its purpose to determine teaching competence? Is professional growth and development its objective? Is it to be used primarily to identify individuals for promotion? Will it be used to provide a differential in pay for meritorious performance?

More recently, Redfern (1972:6) has emphasized that "initial enthusiasm for performance evaluation too often is blunted and fades away simply because of inadequate investment in the preparation and skill development of those who participate in the process."

The purpose or purposes of staff evaluation have implications for in-service education and should be closely tied to it. The opportunity for personnel to improve their performance to meet job requirements and obtain advancements is necessary in order to attract and retain a highly qualified staff.

| Classification                                                                                       | Schedule of Evaluation                                                        |          |          |
|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|----------|----------|
|                                                                                                      | 1st Year                                                                      | 2nd Year | 3rd Year |
| <u>Probationary Status</u>                                                                           |                                                                               |          |          |
| (a) Beginning and new appointees                                                                     | FE                                                                            |          |          |
| (b) Second year staff members whose work was satisfactory first year                                 |                                                                               | PE       |          |
| (c) Second year staff members whose work was less than satisfactory first year                       |                                                                               | FE       |          |
| (d) Third year staff members                                                                         |                                                                               |          | FE       |
| <u>Tenure Status</u><br>If performance was deemed satisfactory by last evaluation                    | FE every third year; PE during intervening years                              |          |          |
| <u>Less Than Satisfactory Status</u><br>If performance was less than satisfactory by last evaluation | FE annually until performance becomes satisfactory or services are terminated |          |          |

Figure 1. Redfern Staff Evaluation Approach

Key:

FE - full evaluation

PE - partial evaluation (self-appraisal only)

## IN-SERVICE EDUCATION

In-service education, when properly developed, supervised, and evaluated, allows the cooperative vocational education staff to be growing professionals. An effective in-service educational program will depend on the many variables that are external and internal to the cooperative vocational education program operation.

An effective in-service education program for most vocational teachers could serve the teacher-coordinator of cooperative vocational education programs as well. In discussing vocational education staff development, Evans (1970:52-53) points out that:

The most effective pattern of in-service education is one which involves employment of the teacher for 12 months with summers devoted to building strengths and remedying weaknesses. Depending upon the long-term professional development plan which has been prepared for each teacher, summers may be spent in employment, in curriculum development, in further education, or in a variety of other needed activities. Every professional development plan should include the opportunity to visit other schools for brief periods of time. It is amazing how parochial most teachers really are. They have no idea of the strengths and weaknesses of programs in comparable schools in other communities, and indeed have little knowledge of employment opportunities outside their own community. Another highly desirable activity would be a regular exchange program with employers, not only to upgrade the knowledges of the regular teacher, but to acquaint key individuals in business and industry with what is actually going on in the schools.

A third major feature of each professional development package should be attendance at and participation in professional meetings...

If optimum learning conditions are to prevail for students, in-service education is an important element that cannot be treated lightly. Local school administrators

should actively make their staff development needs known to state officials who are charged with the responsibility of providing in-service education. The state director of vocational education is legally responsible for maintaining adequate in-service education programs for practicing vocational educators. The state plan for vocational education details the specifics about in-service education and it is the responsibility of the state director of vocational education to channel resources through appropriate agencies for the provision of such programs.

Unfortunately, as Evans (1971:205) points out, "In practice, in-service education is as sadly neglected in vocational and technical education as it is in other fields of education." Many of the gaps in the provision of a responsive in-service education program appear to be caused by a lack of "needs" communication among responsible parties.

After reviewing documentation on cooperative vocational education recruitment and training activities, York and Butler (1971:8) conclude:

...[with] the potential shortage of teacher-coordinators, it appears that new and stronger relationships between business and industry, state departments of education, teacher education institutions, and local education agencies will be needed to bring about changes in preservice and in-service teacher education programs and certification standards.

The problem of who gives and gets credit for in-service education seems to be a confounding variable, as well as the sizable amounts of travel and staff time required to provide it. New and stronger relationships between responsible officials could greatly aid in resolution of this problem. Hopefully, credit and opportunities in a wider variety of in-service activities would result. The following are some considerations dealing with in-service education for cooperative vocational education staff members.

#### Professional Development Plan

A professional development plan for each teacher-coordinator, and other cooperative vocational education staff,

should grow out of local education agency staff appraisal activities. In-service education to fulfill staff development needs should be communicated to the state director of vocational education or his designated representative. Clusters of staff development needs could then be identified and appropriate in-service educational opportunities could be provided at the state or local level. Local education agencies could offer in-service education, but area meetings ought to be coordinated at the state level to eliminate unnecessary duplication of effort.

### Business and Industry Schools

Few local schools and certification agencies at the state level grant credit for staff participation in educational programs operated by business and industry. Part of this problem stems from the failure of leaders in both vocational and technical education and business and industry to develop a strong partnership. It appears that leaders in vocational and technical education must assume the initiative in order to bring business and industry into the vocational education staff development picture. Conners (1971) claims that industry cannot or will not play the role expected of it in the vocational personnel development system until or unless a way is found for it to understand more fully what that role is or should be. He points out:

...There certainly is evidence all around us to show that the partnership is not strong enough to establish industry as much more than a silent, almost non-participative partner. That being so, both sides must accept some of the censure for the condition. Throughout the country there are cases of common partnership efforts here and there...but much more is needed (1971:6).

Few would disagree that one of the greatest challenges to educators, particularly cooperative vocational educators, is keeping abreast of the rapid changes in technology and occupational skills. Strong (1971) points out that new products, materials, equipment, and methods can make occupational skills of vocational educators partially, if not completely, obsolete unless ways are found to update experience. Evans (1971) suggests that one of the most effective ways to update experience is by attending manufacturer and

distributor operated schools. Many of these schools reserve enrollments for teachers at reduced rates or even free tuition. Evans emphasizes:

Instruction is generally of very high quality and is extremely intensive, and some of the best vocational and technical teachers regularly avail themselves of the opportunities provided by these schools and thus keep up-to-date technically (1971:207).

Since vocational education and business and industry have not operationalized an effective plan to evolve a cooperative personal development system at the state level, there is an absence of information about business/industry schools that could be valuable to cooperative vocational education personnel, as well as other vocational educators. As a first step, each community should identify business and industrial firms that operate schools in which educators can enroll. This approach would require a minimum of financial input by the local school, if conducted in cooperation with business and industry.

Each state department of vocational education should consider developing and providing a clearinghouse for announcing business and industry in-service and preservice educational opportunities open to vocational business and industrial educators throughout the state.

An initial effort at the national level was launched by Maxwell (1969), who conducted a field study to identify industrial training programs in which industrial education teachers could participate. Oxe (1966) conducted a survey of selected automobile manufacturer training programs. Both of these studies represent a beginning at the national level. A long-range national plan to systematically announce business and industry educational opportunities is greatly needed according to Evans (c. 1971:208), who states: A nation-wide communications network announcing the availability of applications for enrollment in industry-operated schools would be a tremendous forward step in in-service education.

The present haphazard method of learning about business and industry educational opportunities will delay efforts to

provide viable in-service education for cooperative vocational education staff members and other educators. Consideration should be given at the federal level to establishing a communication network about business and industry training opportunities for educators.

### Self-Instructional Simulation Materials

The gradual evolvement of self-instructional simulation materials for teacher-coordinators offers promise for improvement of competencies. The materials are self-pacing, require little instructor time, and can be utilized in the local education agency by individual cooperative vocational education staff members or in workshop settings.

Five examples of self-instructional materials for teacher-coordinators will be cited. Materials of this nature are announced with regularity in *Abstracts of Instructional Materials in Vocational and Technical Education* (1967 to present) and *Research in Education* (1967 to present).

Uthe (1972) reported on a project designed to develop teacher education materials for cooperative vocational education. Designed for teacher-coordinators of cooperative occupational programs and for cooperative programs designed for disadvantaged youth, these materials relate to coordination techniques and individualized related-occupational instruction. The materials include multi-media programs (slide/tape presentations combined with a student notebook) and simulated cases.

Harrington (1970) conducted a study to test an instructional package designed to provide preservice teacher-coordinators with better interviewing skills. A video camera, microphone, videotapes, television monitor, and two video tape recorders are needed to use the package. Most participants in the study indicated they were better prepared to conduct interviews with potential training station sponsors because of their experience with the self-instructional package.

Bikkie and his associates (1972) have reported on a comprehensive innovation called "The Mediated Teacher Education Project for the Development of Cooperative Work-Study Programs." Developed at The University of Nebraska with

funds from The Vocational Education Division of The Nebraska State Department of Education, the project was conceived with the belief that a traditional teacher-coordinator course could be restructured and packaged into individualized contract-type task units which would build specific competencies needed to successfully coordinate a cooperative vocational education program. The result is a multi-media approach focusing on needed teacher-coordinator competencies in: (1) organization and administration, (2) public relations, (3) occupational training, (4) classroom instruction, (5) co-curricular activities, (6) coordination, (7) adult education, and (8) evaluation and follow-up. Each learning plan provides the teacher-coordinator with:

- 1) Specific observable behavior expected upon completion of the plans.
- 2) An objective method to ascertain if expected behavior has been acquired.
- 3) A listing of supportive materials, references, and other information needed to complete different tasks.
- 4) Instructions concerning use of references and reinforcement relative to assignments to be handed in.

Various pieces of hardware and software accompany the learning plans. The multi-media learning plans or "contracts" accommodate a wide range of learning styles:

The outstanding attributes of these learning plans are that they are easily adapted to individual student needs and that they suggest a variety of learning resources that utilize multiple forms of media and materials. They are fitted into an instructional system that allows the student to move in and out according to his previous knowledge... If a student is competent at one level, he is free to move to another level without working through the plan for the level at which he is competent (Bikkie, et al., 1972:37).

Comprehensive evaluations of this Nebraska project by an outside team of vocational teacher educators, cooperative

vocational education coordinators, and former students indicate the development is highly successful.

More recently, Koeninger, et al. (1973) have developed another comprehensive instructional package focusing on simulation activities for cooperative vocational education personnel. It was developed by the Department of Vocational Education at the University of Northern Colorado under a contractual agreement with The Center for Vocational and Technical Education at The Ohio State University. The comprehensive simulation package is composed of two units for preservice and in-service personnel development. *The Glen Oaks Simulation* (Koeninger, et al., 1973) is designed to prepare teacher-coordinators for cooperative vocational education programs. The other package, *The State of Buchanan Simulation*, is designed for preparing supervisory personnel, particularly at the state level (Koeninger, et al., 1973). Focusing on the different performance functions of teacher-coordinators, *The Glen Oaks Simulation* is divided into program planning, selection of student-trainees, coordination activities, adult education, guidance and counseling, school related instruction, discipline, public relations, youth organizations, and professional activities modules. *The State of Buchanan Simulation* features separate modules on evaluation, promotion and public relations, research, planning, policy formulation, coordination, fiscal procedures, personnel activities and professional consultation.

In-basket items in the form of letters, memorandums, interruption tapes, and role playing constitute the techniques employed in both simulation packages.

Like the Nebraska materials, the comprehensive Glen Oaks and State of Buchanan simulation packages are readily adaptable to a variety of instructional situations. The effectiveness of the Glen Oaks and State of Buchanan simulation packages have been demonstrated with user groups for which they were designed (Koeninger and Ward, 1972; Koeninger, et al., 1972; Spooner and Koeninger, 1972).

Use of multi-media self-instructional materials can add an exciting and realistic dimension to both preservice and in-service teacher-coordinator development efforts. Additionally, such materials may provide pertinent in-service education for paraprofessional staff members.

## TEACHER RECRUITMENT

Recruiting effective staff members for the cooperative vocational education program has been a major problem for administrators. Quite often, unqualified individuals have been hired to coordinate new and operating cooperative vocational education programs. This can result in a disastrous experience for all concerned with the program. A thorough understanding of the performance expectations and personal characteristics of successful coordinators, which were discussed earlier, will greatly aid the staff recruiter. Use of position guides are also helpful to the recruiter, as well as compensation information.

### Sources

Several sources have typically proven to yield qualified teacher-coordinators. Butler and York (1971:8) suggest the following sources for obtaining cooperative vocational education staff members:

- 1) Teacher training institutions with training programs for teacher-coordinators;
- 2) Qualified teachers in the local school system;
- 3) Teachers in the local school system who can qualify with additional coursework and occupational experience;
- 4) Persons from business and industry who qualify or can qualify with additional coursework;
- 5) Returning military veterans who qualify or can qualify with additional coursework or occupational experience; and
- 6) Nonprofessionals with occupational experience and experience in working with youth.

Possibly some of the best staff to recruit would be graduates of cooperative education programs. In an excellent book, Knowles, et al. (c. 1971) point out that over 225 colleges and universities in the United States are providing

various patterns of cooperative education. Beasley and Smiley (1971) have also cited similar post-secondary cooperative training programs for professional educators.

Several programs that might produce potential paraprofessional recruits are thoroughly discussed in a recent publication of the National School Public Relations Association (*Paraprofessionals in Schools...* (1972)).

### Selection

The applications of all potential recruits for the cooperative vocational education program staff should be screened and those appearing to qualify should be interviewed. A thorough check should be made to insure that accurate information has been provided on the application form. Nothing should be taken for granted or left for checking after a staff member has been hired. The time and expense of hiring the wrong person for any job is no small item in dollars. More importantly, if staff members are not carefully selected, the student enrolled in the cooperative education program suffers in many ways.

Finally, few potential staff members will be totally qualified in the beginning. Evaluation activities and in-service education, discussed earlier, can help further develop a promising recruit. However, recruiters should make every effort to obtain staff with credentials that come as close as possible to meeting the position guide requirements, as well as certification standards.

## **CONCLUSIONS AND RECOMMENDATIONS**

Like any other educational effort in a school, the success of the cooperative vocational education concept is highly dependent upon personnel who are hired to operate the program. The context within which the program operates is a prime consideration in acquiring and training appropriate staff.

A core of essential performance tasks has been identified for teacher-coordinators, but little is known about how

paraprofessionals can be or are used in cooperative vocational education programs. Research is needed to determine the effectiveness of differentiated staffing arrangements in cooperative vocational education programs.

Compensation and evaluation efforts may need to be different for cooperative vocational education staff than for other instructional program personnel; however, the plans discussed in the paper may have utility for other staff in a school.

After the staff is "on board," adequate time, incentives, and programs should be offered to permit continuous improvement of essential competencies. Appropriate and systematically planned in-service opportunities must operate in concert with cooperative vocational education staff development needs. Self-instructional simulation materials are being produced and validated with an increasing tempo. Use of such materials can add an exciting and effective dimension to both preservice and in-service education of cooperative vocational education staff.

Finally, it appears evident that a much closer relationship is needed with business and industry in the effort to provide viable and realistic experiences for up-dating cooperative vocational education staff competencies. Consideration should be given to establishing a network for announcing the availability of business/industry personnel development activities, and university offerings developed in conjunction with business/industry to up-date cooperative vocational and other vocational education teacher competencies.

## **APPENDIX**

### **Summary of Rating of Performance Elements**

#### **Common Requirements of Cooperative Vocational Education Programs**

TABLE I  
Summary of Ratings of Performance Elements  
Common Requirements of Cooperative Vocational Education Programs

|                                                             | Essential Before Entering Position |    |    |    |     | Essential After Entering Position |    |    |    |                      |
|-------------------------------------------------------------|------------------------------------|----|----|----|-----|-----------------------------------|----|----|----|----------------------|
|                                                             | AG                                 | OE | DE | HE | T&I | Special Needs                     | AG | OE | DE | HE T&I Special Needs |
| 1. Vocational Survey                                        | X                                  | X  | X  | X  | X   | X                                 | *  | *  | 0  | *                    |
| 2. Long-Range Planning                                      | X+                                 | 0  | X+ | 0  | 0   | 0                                 | *  | *  | *  | *                    |
| 3. Advisory Committee                                       | X                                  | 0  | X  | X+ | X   | 0                                 | *  | 0  | *  | *                    |
| 4. Occupational Selection                                   | X+                                 | X  | X+ | X+ | X+  | 0                                 | *  | *  | *  | *                    |
| 5. Survey Preparation                                       | X                                  | X  | X+ | 0  | 0   | 0                                 | 0  | *  | 0  | *                    |
| 6. Follow-Up                                                | X+                                 | X  | X+ | X  | X+  | X                                 | *  | *  | *  | *                    |
| 7. Administrative Approval for Advisory Committee           | X+                                 | 0  | X+ | X  | X   | X+                                | *  | 0  | 0  | *                    |
| 8. Consultation for Survey                                  | X                                  | X  | X+ | X  | X   | 0                                 | *  | *  | 0  | *                    |
| 9. Planning and Evaluation of Vocational Education Programs | X+                                 | X+ | X+ | X+ | 0   | X+                                | *  | *  | *  | *                    |

Program Planning, Development and Evaluation

1. Vocational Survey
2. Long-Range Planning
3. Advisory Committee
4. Occupational Selection
5. Survey Preparation
6. Follow-Up
7. Administrative Approval for Advisory Committee
8. Consultation for Survey
9. Planning and Evaluation of Vocational Education Programs

Code: X+ = skilled level  
X = oriented level  
0 = no

Code: \* = preparation required  
0 = no

Program Planning, Development and Evaluation (cont.)

10. Utilization of Advisory Committee and Labor for Occupational Analysis

Instruction - Planning

11. Objectives and Performance Goals
12. Preparation of Instructional Materials
13. Lesson Planning
14. Student Involvement in Unit Planning
15. Unit Plans for Individualized Instruction
16. Instructional Materials, Equipment and Supplies
17. Unit Planning

Instruction - Execution

18. Educational Technology
19. Directed Study

| Essential Before Entering Position |    |    |    |     |               | Essential After Entering Position |    |    |    |     |               |
|------------------------------------|----|----|----|-----|---------------|-----------------------------------|----|----|----|-----|---------------|
| AG                                 | OE | DE | HE | T&I | Special Needs | AG                                | OE | DE | HE | T&I | Special Needs |
| X                                  | X+ | X+ | X+ | X   | 0             | *                                 | *  | *  | *  | *   | 0             |
| X                                  | X+ | X  | X+ | X+  | X+            | *                                 | *  | *  | *  | *   | 0             |
| X                                  | X+ | X+ | X+ | X+  | X             | 0                                 | *  | *  | 0  | 0   | *             |
| X+                                 | X+ | X+ | X+ | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| 0                                  | 0  | X  | X+ | 0   | X+            | 0                                 | 0  | *  | *  | 0   | *             |
| X+                                 | X  | X+ | X+ | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X+                                 | X+ | X+ | X  | X+  | X+            | *                                 | *  | *  | 0  | *   | *             |
| X+                                 | X+ | X+ | X+ | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X+                                 | X+ | X+ | X  | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X+                                 | X+ | X+ | X  | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X+                                 | X+ | X+ | X  | X+  | X+            | *                                 | *  | *  | *  | *   | *             |

### Instruction - Execution (cont.)

|     |                                    |
|-----|------------------------------------|
| 20. | Interaction Techniques             |
| 21. | Laboratory Instruction             |
| 22. | Educational Innovations            |
| 23. | Instruction by Students            |
| 24. | Individualized Instruction         |
| 25. | Visual Aids                        |
| 26. | Introduction and Closure of Lesson |
| 27. | Teacher-Centered Techniques        |
| 28. | Traditional Educational Technology |
| 29. | Teaching Techniques                |
| 30. | Outside Resources                  |

## Instruction - Evaluation

31. Student Involvement in Evaluation
32. Formulation of Test Items

| Essential Before Entering Position |    |    |    |     |               | Essential After Entering Position |    |    |    |     |               |
|------------------------------------|----|----|----|-----|---------------|-----------------------------------|----|----|----|-----|---------------|
| AG                                 | OE | DE | HE | T&I | Special Needs | AG                                | OE | DE | HE | T&I | Special Needs |
| X+                                 | X  | X+ | X  | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X+                                 | X+ | X+ | X+ | O   | O             | *                                 | *  | *  | *  | O   | O             |
| X                                  | X  | X  | X  | X   | X             | *                                 | O  | *  | *  | *   | *             |
| X+                                 | X  | X  | X  | X+  | X+            | *                                 | *  | *  | O  | *   | *             |
| X+                                 | X+ | X+ | X+ | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X+                                 | X  | X+ | X+ | X+  | X             | *                                 | *  | *  | O  | *   | *             |
| X+                                 | X+ | X+ | X+ | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X+                                 | X+ | X+ | X+ | X+  | X+            | *                                 | *  | *  | O  | *   | *             |
| X+                                 | O  | O  | O  | O   | O             | O                                 | O  | O  | O  | O   | O             |
| X+                                 | X  | X  | X  | X+  | X+            | *                                 | *  | *  | O  | *   | *             |
| X+                                 | X+ | X  | X  | X+  | X+            | *                                 | *  | *  | O  | *   | *             |
| X+                                 | X+ | X  | X+ | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X+                                 | X+ | X+ | X+ | X+  | X+            | *                                 | *  | *  | *  | *   | *             |

### Instruction - Evaluation (cont.)

33. Evaluation of On-the-Job Experiences
34. Administration and Analyses of Tests
35. Laboratory Tests and Rating Sheets
36. Student Performance Criteria and Evaluation
37. Evaluating Instruction
38. Teacher Self-Evaluation

### Management

39. Laboratory Management
40. Student Behavior
41. Budgeting and Supplies
42. Safety Measures
43. Data and Records
44. Reference Books and Supplies
45. Fees and Gratuities

| Essential Before Entering Position |    |    |    |     |               | Essential After Entering Position |    |    |    |     |               |
|------------------------------------|----|----|----|-----|---------------|-----------------------------------|----|----|----|-----|---------------|
| AG                                 | OE | DE | HE | T&I | Special Needs | AG                                | OE | DE | HE | T&I | Special Needs |
| X+                                 | X  | X+ | X+ | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X+                                 | X+ | X+ | X  | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X+                                 | X+ | X+ | X  | O   | O             | *                                 | *  | *  | O  | O   | O             |
| X+                                 | X+ | X+ | X+ | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X+                                 | X  | X+ | X+ | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X+                                 | X  | X  | X  | X   | X             | *                                 | *  | *  | O  | *   | *             |
| X+                                 | X  | X+ | X+ | X   | O             | *                                 | *  | *  | *  | *   | O             |
| X                                  | X+ | X+ | X+ | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X                                  | X  | X+ | X  | X   | X+            | *                                 | *  | *  | *  | *   | *             |
| X+                                 | X  | X+ | X+ | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X                                  | X  | X+ | X+ | X+  | X+            | *                                 | *  | *  | O  | *   | *             |
| X                                  | X  | X+ | X+ | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X                                  | X  | X+ | X+ | X+  | X+            | *                                 | *  | *  | O  | *   | *             |
| X                                  | O  | X  | X  | X   | X             | *                                 | O  | *  | O  | *   | *             |

### Guidance

- 46. Student Referral
- 47. Administering Standardized Tests
- 48. Personal Concern for Student
- 49. Student Counseling
- 50. Occupational Counseling
- 51. Student Records
- 52. Teacher-Student Rapport

### School-Community Relations

- 53. Feedback on Vocational Programs
- 54. School and Community Service
- 55. Program Publicity
- 56. Staff Relationships
- 57. Unions (Labor and Management)
- 58. Student-School-Community Activities

| Essential Before Entering Position |    |    |    |     |               | Essential After Entering Position |    |    |    |     |               |
|------------------------------------|----|----|----|-----|---------------|-----------------------------------|----|----|----|-----|---------------|
| AG                                 | OE | DE | HE | T&I | Special Needs | AG                                | OE | DE | HE | T&I | Special Needs |
| X                                  | X  | X+ | X+ | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X                                  | X  | X  | X  | X   | X             | *                                 | *  | *  | *  | *   | 0             |
| X                                  | X  | X  | X+ | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X                                  | X  | X  | X  | X   | X+            | *                                 | *  | *  | *  | *   | *             |
| X                                  | X  | X+ | X+ | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X                                  | X  | X+ | X  | X+  | X+            | *                                 | *  | *  | 0  | *   | *             |
| X                                  | X  | X  | X  | X+  | X+            | *                                 | *  | *  | 0  | *   | *             |
| X                                  | X  | X  | X  | X   | X+            | *                                 | *  | *  | *  | *   | *             |
| X                                  | X  | X  | X  | X   | X+            | *                                 | *  | *  | *  | *   | *             |
| X                                  | X  | X  | X  | X   | X             | 0                                 | *  | *  | 0  | *   | 0             |
| X                                  | X  | X  | X  | X   | X             | *                                 | *  | *  | *  | *   | *             |
| X                                  | X  | X  | X  | X   | X             | 0                                 | *  | *  | *  | *   | 0             |
| X                                  | X  | X  | X  | X   | X             | 0                                 | *  | *  | *  | *   | 0             |

School-Community Relations (cont.)

59. Planning School-Community Relations

Student Vocational Organization

60. Management of Student Vocational Organization

61. Cooperation with State and National Organization

62. Establishing Student Vocational Organization

63. Books and Publications

64. Chapter Parents

Professional Role and Development

65. Philosophy and Goals

66. Student Teaching

67. General School Duties

68. Professional Service

69. Self-Evaluation

70. Updating Competencies

71. School Problems

| Essential Before Entering Position |    |    |    |     |               | Essential After Entering Position |    |    |    |     |               |
|------------------------------------|----|----|----|-----|---------------|-----------------------------------|----|----|----|-----|---------------|
| AG                                 | OE | DE | HE | T&I | Special Needs | AG                                | OE | DE | HE | T&I | Special Needs |
| X                                  | X  | X  | X  | X   | X+            | 0                                 | *  | *  | 0  | *   | *             |
| X+                                 | X+ | X+ | X  | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X                                  | X+ | X+ | X  | X   | X+            | *                                 | *  | *  | *  | *   | *             |
| X+                                 | X  | X+ | X  | X+  | X+            | *                                 | *  | *  | 0  | *   | *             |
| X                                  | X  | X+ | X  | X+  | X             | *                                 | *  | *  | 0  | *   | *             |
| X                                  | 0  | 0  | X  | X   | 0             | *                                 | 0  | 0  | 0  | *   | 0             |
| X                                  | X+ | X  | X  | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X                                  | 0  | 0  | 0  | 0   | 0             | *                                 | *  | *  | *  | *   | *             |
| X+                                 | X  | X  | X  | X   | X             | *                                 | *  | *  | *  | *   | *             |
| X+                                 | X  | X  | X  | X   | X             | *                                 | *  | *  | *  | *   | *             |
| X+                                 | X  | X  | X  | X   | X+            | *                                 | *  | *  | *  | *   | *             |
| X                                  | X  | X  | X  | X   | X+            | 0                                 | *  | *  | *  | *   | *             |

# Coordination

72. Coordination of On-the-Job Training
73. Employment Regulations (Federal and State)
74. Student-Learner Selection
75. Safety
76. Training Agreement
77. Training Station
78. Persuasion
79. Student Control On the Job
80. Union
81. Resource Material
82. Related and On-the-Job Instruction

| Essential Before Entering Position |    |    |    |     |               | Essential After Entering Position |    |    |    |     |               |
|------------------------------------|----|----|----|-----|---------------|-----------------------------------|----|----|----|-----|---------------|
| AG                                 | OE | DE | HE | T&I | Special Needs | AG                                | OE | DE | HE | T&I | Special Needs |
| X+                                 | X+ | X+ | X+ | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X+                                 | X  | X+ | X  | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X+                                 | X+ | X+ | X+ | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X+                                 | O  | X+ | X+ | X+  | X+            | *                                 | O  | *  | O  | *   | *             |
| X+                                 | X+ | X+ | X+ | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X+                                 | X+ | X+ | X+ | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X                                  | X+ | X+ | X  | X+  | X+            | O                                 | *  | *  | O  | *   | *             |
| X+                                 | X+ | X+ |    | X+  | X+            | *                                 | *  | *  | O  | *   | *             |
| X                                  | X  | X  | X  | X   | X             | *                                 | *  | O  | O  | *   | *             |
| X+                                 | X+ | X+ | X+ | X+  | X+            | *                                 | *  | *  | *  | *   | *             |
| X+                                 | X+ | X  | X  | X+  | X+            | *                                 | *  | *  | *  | *   | *             |

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